PSS5

SKIN WHITENING MULTIPLE EMULSIONS LOADED WITH GREEN TEA AND LOTUS EXTRACTS: AN EFFICACY STUDY

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OBJECTIVES: Currently, there is no study reporting synergistic skin whitening potential of green tea and lotus in healthy humans. The aim of this study was to investigate the in-vitro anti tyrosinase activity of green tea and lotus extracts, consequently to determine the actual potential efficacy of the topical formulations in healthy humans in a 60 days treatment course. **METHODS:** Thirty three healthy human subjects were enrolled in an approved single-blind, placebo-controlled, split-face trial. Each group with eleven subjects applied green tea (GT), lotus (L) or green tea plus lotus (GT-L) multiple emulsions over 60 days treatment period. The subjects applied placebo treatment on one side of the face while active treatment on other half of the face and they were educated to apply the formulations once daily at bed time. Clinical objective evaluations were performed with a non-invasive biometrology probe at baseline, day 15, 30, 45 and day 60. **RESULTS:** Melanin index-MI measured for each treatment on different time intervals and it was statistically evident that combined treatment of green tea and lotus offered more benefit than single treatments ($P < 0.001$). **CONCLUSIONS:** It was concluded that green tea plus lotus could be explored further for the treatment of pigmentation disorders.

PSS6

OUTCOME OF HARKÁNY THERMAL WATER COMPLETED PUVA THERAPY VERSUS TRADITIONAL PUVA THERAPY OF PSORIATIC PATIENTS

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OBJECTIVES: City of Harkány has a traditional and well recognized thermal water spa since early 19thcentury, the oldest one in Hungary. The aim of our study was to compare the effect of traditional PUVA therapy to the effect of PUVA therapy complemented with Harkány water therapy on psoriasis patients. **METHODS:** Patients with psoriasis were recruited with the help of dermathologists (February-November 2014). We identified two patient groups. The traditional PUVA treatment was conducted in the Hospital of Komló (N=25 patients, average age: 54.7 years), the PUVA treatment complemented with Harkány thermal water treatment was conducted in the Spa Hospital in Harkány (N=52 patients, average age: 57 years). The length of the treatment was 3 weeks. The efficacy of the treatment was assessed by Psoriasis Area Severity Index (PASI scores). **RESULTS:** Patients treated with traditional PUVA therapy had a starting PASI score of 10.1, while patients treated with PUVA complemented with Harkány water therapy had the starting PASI score of 8.2. After the three weeks long treatment patients treated with traditional PUVA treatment got a 50% better PASI score vs. the starting point. In the other group, where patiants were treated with PUVA complemented with Harkány water the PASI score showed an improvement bigger than 75%. The change is 5.2 points at the traditional and 6.2 points at the Harkány water treatment, and the derogation is significant ($p<0,005$), than in the control group. **CONCLUSIONS:** The PUVA therapy complemented with Harkány thermal water therapy resulted in an increased improvement in the patients' quality of life, based on the PASI scores. It is advisable to rethink the psoriasis therapy protocol, due to the increased improvement of the patients treated with Harkány thermal water.

PSS7

EFFICACY COMPARISON OF ANTI-VEGF AND LASER PHOTOCOAGULATION IN THE TREATMENT OF VISUAL IMPAIRMENT DUE TO DIABETIC MACULAR EDEMA: A SYSTEMATIC REVIEW AND NETWORK META-ANALYSIS

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OBJECTIVES: Compare the efficacy of therapies in the treatment of visual impairment due to diabetic macular edema. **METHODS:** A systematic review was conducted to identify relevant randomized control trials (RCTs). RCTs reporting 6- or 12-month results for ranibizumab, aflibercept, laser or sham were included. The analysed outcomes were best-corrected visual acuity (BCVA) measured as the proportion of patients gaining at least 10 letters or 15 letters. Efficacy comparisons were made using a Bayesian network meta-analysis with random treatment effects adjusting for baseline BCVA. **RESULTS:** The analysis included 2634 patients from 10 RCTs (including DRCR-net Protocol T). For the percentage of patients who gained ≥10 letters, ranibizumab 0.5 mg pro re nata(PRN) was numerically superior to aflibercept (OR, 1.6; 95% credible interval [CrI], 0.6–5.4). The odds of gaining ≥ 15 letters were the same for ranibizumab 0.5 mg PRN and aflibercept 2q8 (OR, 1.0; 95% CrI, 0.3–5.9 for PRN). Similar findings were found for ranibizumab 0.5 mg treat and extent (T&E). The probability that ranibizumab 0.5 PRN was a better treatment than aflibercept was 84% for patients gaining ≥ 10 letters and 51% for patients gaining ≥ 15 letters. The odds-ratio of gaining ≥ 10 letters with ranibizumab 0.5 mg (PRN or T&E) vs. 0.3 mg PRN was 2.3 (95% CrI: 0.5-16.6) and 2.0 (95% CrI: 0.4-30.7) for ≥ 15 letters. The probability that ranibizumab 0.5 mg was superior to 0.3 mg PRN was 89% for patients gaining ≥ 10 letters and 82% for patients gaining ≥ 15 letters. **CONCLUSIONS:** Ranibizumab 0.5 mg patients had a higher probability of gaining ≥ 10 letters than aflibercept patients and had similar probabilities of gaining ≥ 15 letters as aflibercept. Ranibizumab 0.5 mg has a higher probability of being the best treatment than ranibizumab 0.3 mg PRN.

PSS8

SYSTEMATIC REVIEW AND MIXED TREATMENT COMPARISON OF THERAPIES FOR DIABETIC MACULAR EDEMA

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OBJECTIVES: The recent publication of the DRCR.net Protocol T study, sponsored by the National Institutes of Health (NIH), is the first head-to-head trial of ranibizumab (Lucentis, Genentech), aflibercept (Eylea, Regeneron), and bevacizumab (Avastin, Genentech). The lack of head-to-head data of the anti-vascular endothelial growth factor treatments of diabetic macular edema (DME) has led to a dependency on indirect comparisons of treatments for DME. To update the current literature, an indirect comparison of the effectiveness of all treatments for diabetic macular edema (DME) in the last 10 years was undertaken, and includes results from the Protocol T study. **METHODS:** A comprehensive search was conducted to identify relevant studies published in the last 10 years on MEDLINE, Embase, the Cochrane Library, and CINAHL. Selective studies were synthesized and assessed for quality. Studies with too few patients (less than 30) or with a quality score of 25% or lower were excluded. A random-effects model was used to pool effectiveness and to examine heterogeneity. **RESULTS:** At the time this abstract was published, the results were still being finalized. It is expected that the results will show a greater improvement in best-corrected visual acuity (BCVA) for patients treated with aflibercept compared to the other treatments, similar to previous meta-analyses. Unlike recent previous meta-analyses, this study will provide a comparative assessment of all other treatments for diabetic macular edema, including laser and steroids such as dexamethasone and triamcinolone. **CONCLUSIONS:** This study seeks to clarify and update the current literature with the results of an indirect comparison. Results and conclusions are forthcoming and will be presented at the ISPOR 18th Annual European Congress.

PSS9

HIGHER DRUG SURVIVAL RATES IN PATIENTS WITH PSORIASIS UTILIZING ETANERCEPT COMPARED TO ADALIMUMAB – A NATIONWIDE POPULATION-BASED COHORT STUDY IN SWEDEN

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OBJECTIVES: Drug survival (time to drug discontinuation) can be interpreted as a composite measure of effectiveness, safety and tolerability. The aim of the present study was to compare the drug survival between adalimumab and etanercept in patients diagnosed with psoriasis (PsO) in Sweden. **METHODS:** Patients with PsO (ICD-10; L40.0, L40.4-L40.5, and L40.9) starting their first treatment of etanercept or adalimumab between 2009 and 2014 were identified in the publicly available Swedish Drug Prescribed Registry and record-linked to the Swedish National Patient Registry. Data were collected through 31 December 2014. Drug discontinuation was defined as if the patient did not pick upa prescription at the pharmacy for the same treatment within 90, 100 and 120 days after the end of the previous dispensing episode. Kaplan-Meier curves and Cox regression was used with adjustment for sex, calendar year and age at initiation. **RESULTS:** A total of 3,640 PsO patients were utilizing their first etanercept (48.3%) or adalimumab (51.7%) treatment between 2009 and 2014 in Sweden. There were statistically significant differences in calendar year ($p<0.001$) and age at initiation ($p=0.014$), but not for sex ($p=0.081$) between the two treatments. Drug survival was statistically significant higher for etanercept compared to adalimumab when using 90, 100 but not for 120 days as the definition for discontinuation. Following adjustment for calendar year, sex and age at initiation, the risk of discontinuation was lower in etanercept compared to adalimumab when using 90 and 100 days as the definition time (90 days; HR 0.83, 95% CI 0.76-0.92; 100 days HR 0.86; 95% CI 0.77-0.96; 120 days HR 0.92 95% CI 0.81-1.04). Also, increased age at initiation, calendar year, and male were all independent factors for a lower discontinuation rate. **CONCLUSIONS:** Drug survival rates were higher for etanercept compared with adalimumab among PsO patients in a nationwide real world setting in Sweden.

PSS10

HEALTHCARE PATHWAYS AND BURDEN OF DISEASE OF PATIENTS WITH SKIN AND SOFT TISSUE INFECTIONS (SSTIS)

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OBJECTIVES: SSTIs are an emerging cause of outpatient visits and hospitalizations, due to the dramatic rising of antimicrobial resistance and severity of the infection. This study aimed to analyze the healthcare profile of patients with SSTIs in the real clinical practice and to determine the total cost of the disease. **METHODS:** Starting from ARNO Observatory database (13 million citizens), a cohort of patients with SSTIs, with available, complete and good quality data on pharmaceutical prescriptions, diagnostic procedures and hospital discharges, was selected. The accrual period lasted from the January 1st to December 31st 2012. Every single patient was followed for 1 year, to identify events, healthcare services associated to SSTIs and their costs. A focus on Linezolid was made to evaluate the proper length of treatment, both in hospital (assuming hospitalization days equivalent to prescriptions) and in community care (pharmaceutical prescriptions). **RESULTS:** Of 2.216 patients with SSTIs (67% men, mostly aged ≤ 25), 1.771 (79,9%) received at least one drug prescription: "Beta-lactam antibacterials" the most prescribed (40%) and "Other antibiotics" the most expensive (1.340€), where Linezolid resulted the most used (106 patients). According to requirements, its therapy length is appropriate if it lasts 10 to 14 days (600mg twice daily). The outpatient oral cycle therapy lasted on average for 17,8 days and the IV formulation for 9,8 days, while hospitalization days were on average 7. Ordinary and daily hospitalizations were the most expensive healthcare services (on average 4.718€/patient). Linezolid widely contributes to pharmaceutical costs (622€/patient), both for IV and for oral formulation, respectively mean expenditure 914€ and 686€ during the one-year follow-up. **CONCLUSIONS:** The community use of Linezolid is bordering on authorized dosages and raises costs of patients with SSTIs. This must be considered by LHUs and Physicians when assessing healthcare profiles of SSTIs disease, estimating costs of illness and improving clinical governance.